Delphion

The Delphion Integrated View

Other Views:
INPADOC

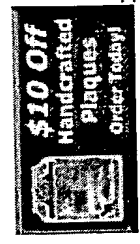|	
Title:	**JP425O698A2: COOLING MODULE FOR ELECTRONIC CIRCUIT**
Country:	JP Japan
Kind:	A
	No Image
Inventor(s):	CHAO-FAN CHU RICHARD SIMONS ROBERT E VADER DAVID T
Applicant/Assignee	INTERNATL BUSINESS MACH CORP <IBM> News, Profiles, Stocks and More about this company
Inquire Regarding Licensing	
Issued/Filed Dates:	Sept. 7, 1992 / March 18, 1991
Application Number:	JP19910O052434
IPC Class:	H05K 7/20; F25D 3/10;
Priority Number(s):	April 18, 1990 US1990000510756
Abstract:	**Purpose:** To provide a high performance cooling module for electronic circuit. **Constitution:** A group of piston members 210 is brought into contact with each integrated circuit chip 204 on a substrate. The piston member is provided, on the bottom thereof, with a rectangular leg part touching the chip for the purpose of thermal conduction cooling. An insulating cooling medium being fed to the central part of each group of piston members flows on the surface at the leg part and a channel between the leg parts and convection cooling enhanced by a jet flow takes place at the lower part of the piston member. The piston member serves to increase the surface area where forced convectional cooling takes place. Microfins projecting from the leg part of the piston member increases heat transmission area. When it is used under nonboiling state, a groove is made in the surface at the leg part of the piston member touching

the chip in order to bring the cooling medium into contact with boundary surface between the chip and the piston member.
Consequently, upper part of the piston member is immersed into the insulating cooling medium and cooled.
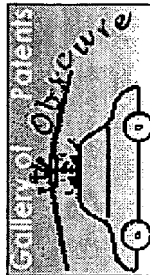COPYRIGHT: (C)1992,JPO

Family: Show known family members

Other Abstract Info: DERABS G91-311977

Foreign References: No patents reference this one

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